

APPEAL BRIEF		
First Named Inventor: Rajesh Saini	Docket Number: 2001-IP-005484U1P1	
Application Number: 10/736,339	Art Unit: 1715	Conf. Number: 3700
Filing Date: December 15, 2003	Examiner: Elena Tsoy Lightfoot	
Title: On-the-Fly Coating of Acid-Releasing Degradable Material Onto a Particulate		

MAIL Appeal Brief - Patents
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

Dear Sir,

Pursuant to 37 C.F.R. § 41.37, please consider the following Appellants' Brief in the above-referenced application currently before the Board of Patent Appeals and Interferences. This brief is submitted in support of Appellants' Notice of Appeal from the rejections in the Final Office Action dated February 25, 2011 (the "Final Office Action"), the Advisory Action dated April 27, 2011 (the "Advisory Action"), and the Notice of Panel Decision from the Pre-Appeal Brief Review dated June 27, 2011 (the "Pre-Appeal Decision").

Pursuant to the Pre-Appeal Decision, the shortened statutory period for filing this Appeal Brief is one month from the mailing of that decision (July 27, 2011), or two months from the receipt of the Notice of Appeal (July 25, 2011), whichever is greater. Thus, this Appeal Brief is timely filed.

TABLE OF CONTENTS

I.	STATEMENT OF THE REAL PARTY IN INTEREST	3
II.	RELATED APPEALS AND INTERFERENCES	3
III.	STATUS OF CLAIMS	3
IV.	STATUS OF AMENDMENTS	4
V.	SUMMARY OF CLAIMED SUBJECT MATTER	4
VI.	GROUND OF REJECTION TO BE REVIEWED ON APPEAL	6
VII.	ARGUMENT	7
A.	Claims 42-48, 55-59, and 61 are not obviated by <i>Nguyen, Lee, and Still</i>	7
B.	Claims 42-48, 55-59, and 61 are not obviated by <i>Nguyen, Lee, Still, and Murphey</i>	8
C.	Claims 42-48, 55-59, and 61 are not obviated by <i>Nguyen, Lee, Still, and McDougall</i>	9
D.	Claims 42-61 are not obviated by <i>Nguyen, Lee, Still</i> , or by <i>Nguyen, Lee, Still, and Murphey</i> or by any of the above in combination with <i>Mikos</i>	9
E.	Claims 42-61 are not obviated by <i>Nguyen, Lee, Still</i> , or by <i>Nguyen, Lee, Still, and Murphey</i> or by any of the above in combination with <i>Cooke and Schwartz</i>	10

I. STATEMENT OF THE REAL PARTY IN INTEREST

The real party in interest in the referenced Application is:

Halliburton Energy Services, Inc.
10200 Bellaire Blvd.
Houston, Texas 77072

assignee of all rights and interests in the present application. An assignment to Halliburton of the parent to this continuation-in-part application was signed by the inventors and recorded with the United States Patent and Trademark Office at Reel/Frame 014809/0846 on December 15, 2003 and is effective under Manual of Patent Examining Procedure ("MPEP") § 306.

II. RELATED APPEALS AND INTERFERENCES

To the best of the knowledge of the Appellant and the Appellant's legal representative, there are no other appeals or interferences that will directly affect, be affected by, or have a bearing on the decision of the Board of Patent Appeals and Interferences ("the Board") in this appeal.

III. STATUS OF CLAIMS

The present application, Serial No. 10/736,339 (hereinafter "the Application"), was filed December 15, 2003 and included claims 1–41. The Application is a continuation-in-part of U.S. Application No. 10/641,242, which was filed on August 14, 2003 and is now U.S. Patent No. 7,080,688. During prosecution of the present Application, claims 1-41 were cancelled and claims 42-61 were added. Claims 42-61 are finally rejected and form the basis of the present appeal. A listing of all appealed claims is provided in Appendix A of this Appeal Brief.

IV. STATUS OF AMENDMENTS

All amendments submitted to the Examiner during prosecution prior to the submission of this Appeal Brief have been entered in the record. The Claims provided in Appendix A hereto reflect claims 42-61 as they presently stand.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The application contains three independent claims, namely claims 42, 49, and 55, which are the subject of this appeal. Appellant proffers the following summary of the independent claims, identifying exemplary support in the as-filed specification. While examples of supporting disclosure are presented, it should be understood that additional examples and/or embodiments may also be disclosed within the specification and drawings as well.

With regard to aspects of the invention set forth in independent claim 42, discussion of the recited features of that claim can be found at least in the below-cited locations of the specification. Embodiments of the present invention described in claim 42 are directed to methods of degrading a filter cake in a subterranean formation (p. 5, ll. 5-12) wherein an acid-releasing degradable material is combined with a solvent or plasticizer (p. 5, l. 27 - p. 6, l. 14). The combined acid-releasing degradable material and solvent/plasticizer is then coated onto a particulate on-the-fly (p. 5, ll. 23-26 and p. 6, l. 29 – p. 7, l. 11). The acid-releasing degradable material is substantially water-insoluble (p. 5, ll. 23-26) and is selected from the group consisting of “poly(orthoester); a lactide, a poly(lactide); a glycolide; a poly(glycolide); a poly(ε-caprolactone); a poly(hydroxybutyrate); a substantially water insoluble anhydride; a poly(anhydride); a poly(amino acid); a copolymer of two or more of the above-listed compounds; and any

combination thereof" (p. 6, ll. 15-21 and p. 7, ll. 7-11). The coated particulates are then placed into a subterranean formation substantially adjacent to a filter cake (p. 8, l. 25 – p. 9, l. 3) and the acid-releasing degradable material degrades to produce an acid that contacts and degrades a portion of the filter cake (p. 5, ll. 5-12).

With regard to aspects of the invention set forth in independent claim 49, discussion of the recited features of claim 49 can be found at least in the below-cited locations of the specification. Embodiments of the present invention described in claim 49 are directed to methods of using a portion of a gravel pack to degrade a portion of a filter cake on (p. 5, ll. 5-12) wherein an acid-releasing degradable material is combined with a solvent or plasticizer (p. 5, l. 27 - p. 6, l. 14). The combined acid-releasing degradable material and solvent/plasticizer is then coated onto a particulate on-the-fly (p. 5, ll. 23-26 and p. 6, l. 29 – p. 7, l. 11). The acid-releasing degradable material is substantially water-insoluble (p. 5, ll. 23-26) and is selected from the group consisting of "poly(orthoester); a poly(ϵ -caprolactone); a poly(hydroxybutyrate); a substantially water insoluble anhydride; a poly(anhydride); a poly(amino acid); a copolymer of two or more of the above-listed compounds; and any combination thereof" (p. 6, ll. 15-21 and p. 7, ll. 7-11). The coated particulates are then placed into a subterranean formation substantially adjacent to a filter cake (p. 8, l. 25 – p. 9, l. 3) and the acid-releasing degradable material degrades to produce an acid that contacts and degrades a portion of the filter cake (p. 5, ll. 5-12).

With regard to aspects of the invention set forth in independent claim 55, discussion of the recited features of claim 55 can be found at least in the below-cited locations of the specification. Embodiments of the present invention described in claim

55 are directed to methods of degrading filter cake in a subterranean formation (p. 5, ll. 5-12) wherein an acid-releasing degradable material is combined with a plasticizer, other than starch, to create a coating solution (p. 5, l. 27 - p. 6, l. 14). The combined acid-releasing degradable material and solvent/plasticizer is then coated onto a particulate on-the-fly (p. 5, ll. 23-26 and p. 6, l. 29 – p. 7, l. 11). The acid-releasing degradable material is substantially water-insoluble (p. 5, ll. 23-26). The coated particulates are then placed into a subterranean formation substantially adjacent to a filter cake (p. 8, l. 25 – p. 9, l. 3) and the acid-releasing degradable material degrades to produce an acid that contacts and degrades a portion of the filter cake (p. 5, ll. 5-12).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 42-48, 55-59, and 61 are unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,209,643 to Nguyen *et al.* (hereinafter "*Nguyen*") in view of U.S. Patent No. 6,817,414 to Lee *et al.* (hereinafter "*Lee*") and U.S. Patent No. 7,166,560 to Still *et al.* (hereinafter "*Still*").

2. Whether claims 42-48, 55-59, and 61 are unpatentable under 35 U.S.C. § 103(a) over *Nguyen* in view of *Lee* and *Still* in further view of U.S. Patent No. 4,829,100 to Murphey *et al.* (hereinafter "*Murphey*").

3. Whether claims 42-48, 55-59, and 61 are unpatentable under 35 U.S.C. § 103(a) over *Nguyen* in view of *Lee* and *Still* in further view of U.S. Patent No. 5,192,615 to McDougall *et al.* (hereinafter "*McDougall*").

4. Whether claims 42-61 are unpatentable under 35 U.S.C. § 103(a) over *Nguyen* in view of *Lee* and *Still* or over *Nguyen* in view of *Lee*, *Still*, and *Murphey* or over

Nguyen in view of *Lee*, *Still*, and *McDougall* and further in view of WO 9425079 to Mikos, *et al.* (hereinafter "*Mikos*").

5. Whether claims 42-61 are unpatentable under 35 U.S.C. § 103(a) over *Nguyen* in view of *Lee* and *Still* or over *Nguyen* in view of *Lee*, *Still*, and *Murphey* or over *Nguyen* in view of *Lee*, *Still*, and *McDougall* or over *Nguyen* in view of *Lee*, *Still*, and *Mikos* and further in view of U.S. Patent App. No. 2003/0060374 to Cooke (hereinafter "*Cooke*") and U.S. Patent App. No. 2003/0125215 to Schwartz *et al.* (hereinafter "*Schwartz*").

VII. ARGUMENT

A. Claims 42-48, 55-59, and 61 are not obviated by *Nguyen*, *Lee*, and *Still*

The primary rejection over the pending claims is over *Nguyen* in view of *Lee* and *Still*; that is, all pending rejections rely on the trio of *Nguyen*, *Lee*, and *Still*. The Final Office Action dated February 25, 2011 states clearly that "*Lee* is a secondary reference which is relied upon to show that polyglycolic-acid is suitable for use as acid releasing treatment chemical." (Final Office Action at pg. 5, emphasis in original). With regard to *Still*, the Office Action dated November 4, 2010 states that *Still* is relied upon to show that solid acid precursors (such as lactides and glycolides, etc.) are known to be useful as delayed release acid producers. (Nov. 4, 2010 Office Action at pg. 6-7). Applicant does not dispute that both *Lee* and *Still* teach acid precursor materials.

The Nov. 4, 2010 Office Action at page 3, to which the Final Office Action refers, relies on *Nguyen* as teaching that a "treatment chemical, which may be in particulate form or coated upon (*i.e.*, coated upon the particulate) or in a substrate (See column 3, lines 43-44)." Applicant disagrees. *Nguyen* discloses that a generic "treatment chemical" may be stuck onto a particulate with a tackifying agent and optionally may be coated thereover

with a resin. *Nguyen* also discusses the possibility that a liquid treatment chemical may be adsorbed onto a particulate and then coated with the tackifying agent and/or resin. However, *Nguyen* does not teach that it might be desirable to render an acid releasing precursor into liquid form and then to coat that substance onto a particulate. There is no reason one of ordinary skill would have read the combination of *Nguyen* in view of *Lee* and *Still* and concluded that an acid-releasing solid, once rendered coatable, would continue to act as an acid-producer down hole.

Nguyen, *Lee*, and *Still*, taken together, do not disclose “combining an acid-releasing degradable material with a solvent or a plasticizer to create a coating solution” and then coating that solution “on-the-fly” as required by independent claims 42 and 49, or “combining an acid-releasing degradable material with a plasticizer to create a coating solution” and then coating that solution “on-the-fly” as required by independent claim 55. Thus, *Nguyen*, *Lee*, and *Still* cannot form a prima facie case of obviousness with respect to the pending claims.

B. Claims 42-48, 55-59, and 61 are not obviated by *Nguyen*, *Lee*, *Still*, and *Murphey*

As discussed above, the combination of *Nguyen*, *Lee*, and *Still* fails to establish that every limitation of independent claims 42 and 55 was known in the prior art. Further, *Murphey* fails to render obvious the deficiencies of *Nguyen*, *Lee*, and *Still*. Rather, the Examiner merely relied on *Murphey* for its alleged teaching that a particulate “can be coated rapidly and continuously by admixing in a stream (on-the-fly) . . . instead of batch mixing which requires a period of time...” (Nov. 4, 2010 Office Action at pg. 10). Claims 43-48, 56-59 and 61 depend, either directly or indirectly, from claims 42 and 55 and therefore include all the limitations of those independent claims, respectively, including

limitations directed to combining an acid-releasing degradable material with a solvent/plasticizer.

Thus, claims 42-48, 55-59, and 61 are patentable over the combination of *Nguyen, Lee, Still, and Murphey*. (35 U.S.C. §112, paragraph 4). Accordingly, for at least these reasons, Applicant respectfully requests that the Board withdraw this rejection.

C. Claims 42-48, 55-59, and 61 are not obviated by *Nguyen, Lee, Still, and McDougall*

As discussed above, the combination of *Nguyen, Lee, and Still* fails to establish that every limitation of independent claims 42 and 55 was known in the prior art. Further, *McDougall* fails to render obvious the deficiencies of *Nguyen, Lee, and Still*. Rather, the Examiner merely relied on *McDougall* for its alleged teaching the use of additives such as friction reducing agents. (Nov. 4, 2010 Office Action at pg. 10-11). Claims 43-48, 56-59 and 61 depend, either directly or indirectly, from claims 42 and 55 and therefore include all the limitations of those independent claims, respectively, including limitations directed to combining an acid-releasing degradable material with a solvent/plasticizer.

Thus, claims 42-48, 55-59, and 61 are patentable over the combination of *Nguyen, Lee, Still, and McDougall*. (35 U.S.C. §112, paragraph 4). Accordingly, for at least these reasons, Applicant respectfully requests that the Board withdraw this rejection.

D. Claims 42-61 are not obviated by *Nguyen, Lee, Still, or by Nguyen, Lee, Still, and Murphey* or by any of the above in combination with *Mikos*

Independent claims 42, 49, and 55 are rejected over the combination of *Nguyen, Lee, Still, and Mikos* or by *Nguyen, Lee, Still, Murphey, and Mikos*. However, Applicant asserts that the pending independent claims are allowable for at least the reasons stated above with regard to the combination of the trio of *Nguyen, Lee, and Still*. The Office Action relies on *Mikos* for its alleged teaching of certain degradable synthetic polymers

and noted that “it is well known in the art that all these polymers hydrolyze with release of an acid.” (Nov. 4, 2010 Office Action at p. 12). Applicant notes that *Mikos* is directed towards medical devices, but as to the issue of what is “well known in the art,” the art of medical devices is not the art at issue. (*Mikos* Abstract). Thus, it is not surprising that *Mikos* does not disclose at least “combining an acid-releasing degradable material with a solvent or a plasticizer to create a coating solution” as required by independent claims 42 or 49, or “combining an acid-releasing degradable material with a plasticizer to create a coating solution” as required by independent claim 55. *Mikos* does not seek to make a degradable material coatable, but rather seeks to use a solid degradable material as “scaffolding” for tissue growth. (*Mikos* at col. 4, l. 66 – col. 5, l. 3).

Thus, claims 42-61 are patentable over the combination of *Nguyen, Lee, Still*, and *Mikos* or by *Nguyen, Lee, Still, Murphey*, and *Mikos*. (35 U.S.C. §112, paragraph 4). Accordingly, for at least these reasons, Applicant respectfully requests that the Board withdraw this rejection.

E. Claims 42-61 are not obviated by *Nguyen, Lee, Still*, or by *Nguyen, Lee, Still*, and *Murphey* or by any of the above in combination with *Cooke* and *Schwartz*

Independent claims 42, 49, and 55 are rejected over the combination of *Nguyen, Lee*, and *Still*, or *Nguyen, Lee, Still*, and *Murphey* or any of the above in combination with *Cooke* and *Schwartz*. Applicant maintains that the combination of *Nguyen, Lee, Still* is insufficient for the reasons stated above and further that *McDougall* does not cure the deficiencies of that trio. Moreover, neither *Cooke* nor *Schwartz* (alone or in combination) cure the deficiencies of *Nguyen, Lee*, and *Still*. Rather, the Office Action relied on *Cooke* for its alleged teaching that a degradable polymer itself may be used with a plasticizer (though *Cooke* does not discuss rendering the degradable polymer liquid and coatable).

(See Nov. 4, 2010 Office Action at pg. 13). Moreover, the Office Action relied on *Schwartz* for its alleged teaching of certain friction reducing compounds. (See Nov. 4, 2010 Office Action at pg. 13).

Thus, claims 42-61 are patentable over the combination of *Nguyen, Lee, and Still*, or *Nguyen, Lee, Still, and Murphey* or any of the above in combination with *Cooke and Schwartz*. (35 U.S.C. §112, paragraph 4). Accordingly, for at least these reasons, Applicant respectfully requests that the Board withdraw this rejection.

CONCLUSION

In light of the foregoing, Appellant respectfully requests that the final rejection of the pending claims should be reversed and the application be remanded for allowance of the pending claims, or, alternatively, remand the application for further examination if appropriate references can be found by the Examiner.

The Commissioner has been authorized to debit McDermott Will & Emery's Deposit Account No. 500417 (Reference No. 086108-0180), in the amount of \$540.00 under 37 C.F.R. § 41.20(b)(2) for filing an appeal brief. Should the Commissioner deem that any additional fees are due, the Commissioner is authorized to debit McDermott Will & Emery's Deposit Account No. 500417 (Reference No. 086108-0180).

Respectfully submitted,

/Iona N. Kaiser/
Iona N. Kaiser
Reg. No. 53,086
McDermott Will & Emery
1000 Louisiana, Suite 3900
Houston, TX 77002-5005
Telephone: 713.653.1724
Facsimile: 713.739.7592
Email: ikaiser@mwe.com

Date: July 20, 2011

APPENDIX A: Claims Involved in the Appeal

Claims Appendix

1-41. (Cancelled)

42. (Previously Presented) A method of degrading filter cake in a subterranean formation comprising the steps of:

combining an acid-releasing degradable material with a solvent or a plasticizer to create a coating solution, wherein the acid-releasing degradable material comprises at least one acid-releasing degradable material selected from the group consisting of: poly(orthoester); a lactide, a poly(lactide); a glycolide; a poly(glycolide); a poly(ϵ -caprolactone); a poly(hydroxybutyrate); a substantially water insoluble anhydride; a poly(anhydride); a poly(amino acid); a copolymer of two or more of the above-listed compounds; and any combination thereof;

coating the coating solution onto a particulate on-the-fly to create coated particulates, wherein the acid-releasing degradable material comprises a material that is substantially water insoluble;

placing the coated particulates into a subterranean formation so that at least a portion of the coated particulates become incorporated in a pack substantially adjacent to a filter cake;

allowing the acid-releasing degradable material to produce acid; and

allowing the acid to contact and degrade a portion of the filter cake.

43. (Previously Presented) The method of claim 42 wherein the filter cake comprises a filter cake on the walls of a well bore or a filter cake on the walls of a fracture.

44. (Previously Presented) The method of claim 42 wherein the particulates are coated with from about 0.1% to about 20% acid-releasing degradable material by weight of the particulates.

45. (Previously Presented) The method of claim 42 wherein acid-releasing degradable material comprises a material that degrades over time in an aqueous environment.

46. (Previously Presented) The method of claim 42 wherein the solvent comprises at least one solvent selected from the group consisting of: acetone;

propylene carbonate; di(propylene glycol) methyl ether; di(propylene glycol) propyl ether; di(propylene glycol) butyl ether; di(propylene glycol) methyl ether acetate; isopropyl alcohol; chloroform; dichloromethane; trichloromethane; 1,2-dichlorobenzene; tetrahydrofuran; benzene; acetonitrile; dioxane; dimethylformamide; toluene; ethyl acetate; isoamyl alcohol; N-methylpyrrolidone; xylene; dichloroacetic acid; m-cresol; hexafluoroisopropanol; diphenyl ether; acetonitrile; methanol; ethyl benzene; naphthalene; naphtha; and any combination thereof.

47. (Previously Presented) The method of claim 42 wherein the plasticizer comprises at least one plasticizer selected from the group consisting of: polyethylene glycol; polyethylene oxide; oligomeric lactic acid; a citrate ester; a glucose monoester; a partially esterified fatty acid ester; PEG monolaurate; triacetin; poly(ϵ -caprolactone); poly(hydroxybutyrate); glycerin-1-benzoate-2,3-dilaurate; glycerin-2-benzoate-1,3-dilaurate; a starch; bis(butyl diethylene glycol)adipate; ethylphthalylethyl glycolate; glycerine diacetate monocaprylate; diacetyl monoacyl glycerol; polypropylene glycol; poly(propylene glycol)dibenzoate, dipropylene glycol dibenzoate; glycerol; ethyl phthalyl ethyl glycolate; poly(ethylene adipate)distearate; di-iso-butyl adipate; and any combination thereof.

48. (Previously Presented) The method of claim 42 wherein the acid-releasing degradable material comprises a poly(orthoester).

49. (Previously Presented) A method of using a portion of a gravel pack to degrade a portion of a filter cake comprising the steps of:

combining an acid-releasing degradable material with a solvent or a plasticizer to create a coating solution; wherein the acid-releasing degradable material comprises at least one acid-releasing degradable material selected from the group consisting of: poly(orthoester); a poly(ϵ -caprolactone); a poly(hydroxybutyrate); a substantially water insoluble anhydride; a poly(anhydride); a poly(amino acid); a copolymer of two or more of the above-listed compounds; and any combination thereof;

coating the coating solution onto gravel on-the-fly to create coated gravel, wherein the acid-releasing degradable material comprises a material that is substantially water insoluble;

introducing the coated gravel to a well bore having a filter cake so that at least a portion of the coated gravel is incorporated in a gravel pack substantially adjacent to the filter cake;

allowing the acid-releasing degradable material to produce acid; and,

allowing the acid to contact and degrade a portion of the filter cake.

50. (Previously Presented) The method of claim 49 wherein the gravel pack composition comprises from about 0.1% to about 20% acid-releasing degradable material by weight of the gravel particles.

51. (Previously Presented) The method of claim 49 wherein the acid-releasing degradable material comprises a material that it degrades over time.

52. (Previously Presented) The method of claim 49 wherein the solvent comprises at least one solvent selected from the group consisting of: acetone; propylene carbonate; di(propylene glycol) methyl ether; di(propylene glycol) propyl ether; di(propylene glycol) butyl ether; di(propylene glycol) methyl ether acetate; isopropyl alcohol; chloroform; dichloromethane; trichloromethane; 1,2-dichlorobenzene; tetrahydrofuran; benzene; acetonitrile; dioxane; dimethylformamide; toluene; ethyl acetate; isoamyl alcohol; N-methylpyrrolidone; xylene; dichloroacetic acid; m-cresol; hexafluoroisopropanol; diphenyl ether; acetonitrile; methanol; ethyl benzene; naphthalene; naphtha; and any combination thereof.

53. (Previously Presented) The method of claim 49 wherein the plasticizer comprises at least one plasticizer selected from the group consisting of: polyethylene glycol; polyethylene oxide; oligomeric lactic acid; a citrate ester; a glucose monoester; a partially esterified fatty acid ester; PEG monolaurate; triacetin; poly(ϵ -caprolactone); poly(hydroxybutyrate); glycerin-1-benzoate-2,3-dilaurate; glycerin-2-benzoate-1,3-dilaurate; a starch; bis(butyl diethylene glycol)adipate; ethylphthalylethyl glycolate; glycerine diacetate monocaprylate; diacetyl monoacyl glycerol; polypropylene glycol; poly(propylene glycol)dibenzoate, dipropylene glycol dibenzoate; glycerol; ethyl phthalyl ethyl glycolate; poly(ethylene adipate)distearate; di-iso-butyl adipate; and any combination thereof.

54. (Previously Presented) The method of claim 49 wherein the acid-releasing degradable material comprises a poly(orthoester).

55. (Previously Presented) A method of degrading filter cake in a subterranean formation comprising the steps of:

combining an acid-releasing degradable material with a plasticizer to create a coating solution, with the proviso that the plasticizer does not comprise a starch;

coating the coating solution onto a particulate on-the-fly to create coated particulates, wherein the acid-releasing degradable material comprises a material that is substantially water insoluble;

placing the coated particulates into a subterranean formation so that at least a portion of the coated particulates become incorporated in a pack substantially adjacent to a filter cake;

allowing the acid-releasing degradable material to produce acid; and

allowing the acid to contact and degrade a portion of the filter cake.

56. (Previously Presented) The method of claim 55 wherein the filter cake comprises a filter cake on the walls of a well bore or a filter cake on the walls of a fracture.

57. (Previously Presented) The method of claim 55 wherein the particulates are coated with from about 0.1% to about 20% acid-releasing degradable material by weight of the particulates.

58. (Previously Presented) The method of claim 55 wherein acid-releasing degradable material comprises a material that degrades over time in an aqueous environment.

59. (Previously Presented) The method of claim 55 wherein the acid-releasing degradable material comprises at least one acid-releasing degradable material selected from the group consisting of: a polyester, a poly(orthoester); a lactide, a poly(lactide); a glycolide; a poly(glycolide); a poly(ϵ -caprolactone); a poly(hydroxybutyrate); a substantially water insoluble anhydride; a poly(anhydride); a poly(amino acid); a mixture of one of the above-listed compounds; a copolymer of two or more of the above-listed compounds; and any combination thereof.

60. (Previously Presented) The method of claim 55 wherein the plasticizer comprises at least one plasticizer selected from the group consisting of: polyethylene glycol; polyethylene oxide; oligomeric lactic acid; a citrate ester; a glucose monoester; a

partially esterified fatty acid ester; PEG monolaurate; triacetin; poly(ϵ -caprolactone); poly(hydroxybutyrate); glycerin-1-benzoate-2,3-dilaurate; glycerin-2-benzoate-1,3-dilaurate; a starch; bis(butyl diethylene glycol)adipate; ethylphthalylethyl glycolate; glycerine diacetate monocaprylate; diacetyl monoacyl glycerol; polypropylene glycol; poly(propylene glycol)dibenzoate, dipropylene glycol dibenzoate; glycerol; ethyl phthalyl ethyl glycolate; poly(ethylene adipate)distearate; di-iso-butyl adipate; and any combination thereof.

61. (Previously Presented) The method of claim 55 wherein the acid-releasing degradable material comprises a poly(orthoester).

APPENDIX B: EVIDENCE APPENDIX

None

APPENDIX C: RELATED PROCEEDINGS APPENDIX

None